Chapter 3.1.2/4.6.1

Earned Value Management (Supplier Performance Measurement) Revision: April 1999 (DRAFT DUE)

1. This chapter is about:

A. This chapter provides policies for: (1) the Defense Contract Management Command (DCMC) Earned Value Executive Agent role; (2) system surveillance, for performing surveillance of a supplier's Earned Value Management System (EVMS); (3) program surveillance, for surveillance of the supplier's Earned Value Management (EVM) performance which provides data for the evaluation of cost, schedule, and technical progress on a contract as part of an integrated risk assessment program; as well as, (4) program assessment which ensures that the data provided meets all contractual performance management requirements (such as DoD/NASA/FAA EVMS requirements).

B. The output of these processes involve (1) determination of acceptability of a supplier's management system; (2) surveillance of the supplier's recognized system; (3) surveillance of the supplier's use of EVM data for program management; and (4) program assessment for compliance with contractual requirements.

2. We do this because:

- A. An EVMS is used by suppliers and the Government to provide timely and reliable cost, schedule, and technical performance measurement information. It is the supplier's responsibility to develop, implement, maintain, and use an EVMS that complies with EVMS criteria and meets contractual requirements. It is DCMC's responsibility to provide system surveillance and program assessment to the buying activity (such as DoD/NASA/FAA/DOE). This service responsibility for our customers shall encompass all contributors to cost and schedule performance, to include sub-tier suppliers. System integrity is ensured through on-site surveillance; program assessment is accomplished by program cost, schedule, and technical performance analyses, as well as discussions with supplier program personnel and program meeting attendance. EVMS stakeholders include the supplier, the CAO, Defense Contract Audit Agency (DCAA), and the buying activities.
- B. Top level metrics for this process are **RIGHT TIME** with a feeder metric of Schedule Slippage's on EVMS Programs, (3.12.2.1), and **RIGHT PRICE**, with feeder metric of Cost Overruns on EVMS Programs, (3.12.1.4). These metrics work together to provide insight for the CAO, buying activities, and government Program Management Offices (PMO) for optimization of supplier business practices.

3. DCMC's policy:

- A. DCMC policy is to: (1) ensure a supplier's EVMS meets contractual requirements; (2) ensure supplier's system complies with EVMS criteria; (3) ensure that EVMS data from this system can be used for supplier and government program management; and, (4) provide value added insight to customers on the supplier's EVMS effectiveness as well as acquisition program current and projected cost and schedule status.
- B. Commander, Defense Contract Management Command (DCMC), is assigned responsibility as the Department of Defense Executive Agent for Earned Value Management Systems. Subordinate headquarters and offices are assigned authority for field execution of the Executive Agent role. The <u>role of the Executive Agent</u> (hypertext to EVMS guidebook) to be performed by DCMC includes:

- 1) Ensure effective coordination and implementation of EVM among DoD and other Government agencies.
- 2) Ensure the integrity and effectiveness in application of processes related to EVM.
- 3) Maintain information related to supplier management system acceptance and review schedules.
- 4) Participate in **Integrated Baseline Reviews** (hyper to DFARS 252.234-7001) (IBRs).
- 5) Involved in the conduct of EVMS review activities by other DoD components.
- 6) Determine if supplier's systems are compliant with the EVMS criteria.
- 7) Submit reports to buying activities on program status and annually on Earned Value Management system health.
- 8) Identify and provide training required ensuring accomplishment of Earned Value.
- 9) Ensure accomplishment of systems compliance reviews.
- 10) Ensure accomplishment of initial systems validation and special reviews.
- 11) Appointment of initial validation review director (by HQ DCMC).
- 12) Withdraw or suspend supplier's system acceptance.
- C. In conjunction with the **DCMC Supplier Risk Management program**, (1 Book Chapter) CAO shall conduct risk management activities for the purpose of establishing the required level of surveillance to be applied to the supplier's system/program and evaluating the resources to be allocated.
- D. DCMC has responsibility for determining and (at least annually) reporting the health of the supplier's EVMS system and its application within acquisition programs. Reporting shall be accomplished according to the schedule detailed by regulation; as established by agreement between the buying activity and the responsible CAO; and when situation indicates that publication of system and/or program data is vital to effective program decisions by the Command and buying activity.
- E. CAO Commander shall **formally appoint** an Earned Value Monitor to monitor the supplier's earned value management system and how it used by the supplier in the management of program cost and schedule. Notification of the appointment of the EVMS monitor shall be made to both the Headquarters and District EVMS Process Champion. Although an EVMS monitor is normally assigned responsibility for the system as a whole, it is the responsibility of the Program Support Team/Program Integrator to oversee the interface and application of the earned value system to the acquisition program. The Commander shall ensure that current system and program status is reported in accordance with Command directives and customer requirements. The Commander shall make use of all available evaluation techniques, such as the **DCMC EVMS Maturity Model** (to EVMS maturity model), to cause improvement to organizational performance. CAO Commander shall evaluate the effectiveness and implementation of EVMS within their organizations as part of the CAO **self-assessment process** (One book chapter-assessment).
- F. Analysis of program cost and schedule performance shall include the impact of the performance of sub-tier suppliers. The CAO at the supplier shall establish <u>letter(s) of delegation</u> (*P&MA chapter*) to CAOs with oversight responsibility for the sub-tier suppliers for the purpose of collecting and analyzing EVM data.
- G. District EVMS Process Champions support respective CAOs and provide a link to the DCMC EVMS Center for any unresolved EVMS issues. The District Process Champion shall provide feedback to the DCMC Headquarters EVMS Process Owner on the effectiveness of DCMC policy regarding determining acceptability and compliance of the supplier's systems with the

<u>EVMS criteria</u> (EVMIG). This will include specific issues that effect EVMS implementation that require involvement of other DoD activities or Federal Agencies. District EVMS Process Champions shall assess the application of EVMS principles, requirements, and policy by CAOs. Instituted EVMS mentor programs shall be monitored by the DCMD EVMS Process Champions. DCMD EVMS Process Champions shall facilitate the acquisition of technical training identified by the CAOs for its assigned EV personnel.

H. EVMS Center shall serve as an advocate within DCMC to assess EVMS policy, guidance, and practices to ensure effective implementation of EVMS across DoD. This shall include providing assistance to CAOs in the performance of specialized EVMS activities such as compliance reviews, review of supplier EVMS changes, and assessment of implementing EVMS on individual programs. In addition, the EVMS Center shall advise DCMC Process Owner on effectiveness of and recommend changes to resources, tools, guidance, and current job competency standards as they affect accomplishment of EVMS tasks by DCMC associates.

4. The process and who is responsible:

A. Process inputs:

- 1) Contract received with EVMS requirements or pre-award document
- 2) EVMS data from previous reviews
- 3) FAR/DFARS Clauses
- 4) Statement Of Work
- 5) Contract Work Breakdown Structure
- 6) Contract Data Requirements List
- 7) Supplier's EVMS description, processes, and internal surveillance plans
- 8) CPR, C/SSR, CFSR, CCDR

B. Sub-processes:

- 1) Early CAS/ Source Selection Board Inquiry
- 2) Contract receipt, review/post-award
- 3) Recognition and validation of supplier's EVMS
- 4) Initiation of Advance Agreement (AA)
- 5) Preparing input to Memorandum of Agreement (MOA) or Letter of Delegation (LOD)
- 6) Surveillance plan development
- 7) Surveillance plan execution
- 8) System and program analysis status reporting
- 9) Adjust surveillance

C. Process mechanisms:

- 1) Memorandum of Agreement (MOA)/Letter of Delegation (LOD)
- 2) DoD Data Item Description, Cost Performance Report (CPR), DI-MGMT-81466
- 3) DoD Data Item Description, Cost/Schedule Status Report (C/SSR), DI-MGMT-81467
- 4) DoD Data Item Description, Contract Funds Status Report (CSFR), DI-MGMT-81468
- 5) DoD Data Item Description, Contract Work Breakdown Structure (CWBS), DI-MGMT-81334
- 7) DD Form 1921 series, Contractor Cost Data Reporting (CCDR)
- 8) EVMS Surveillance Plan
- 9) EVMS portion of Program Surveillance Plan
- 10) Advance Agreement (AA)
- 11) DD Form 1716, Contract Data Package Recommendation/Deficiency Report

D. Process controls:

- 1) FAR 42.302 (a)(15)(40)(41) and (67), Contract Administration Functions
- 2) DoDD 5000.1, Defense Acquisition
- 3) DoD 5000.2-R, Mandatory Procedures For Major Defense Acquisition Programs and Major Automated Information Systems Acquisition Programs
- 4) DFARS 242.302 (a) (41), Contract Administration Functions
- 5) DFARS 242.1107-70, Additional Clauses
- 6) DFARS 252.234-7000, Solicitation Provisions, Notice of Earned Value Management System
- 7) DFARS 252.234-7001, Earned Value Management System
- 8) DFARS 252.242-7005, Cost/Schedule Status Report (C/SSR)
- 9) DFARS 252.242-7006, Cost/Schedule Status Report Plans
- 10) National Aeronautics and Space Administration (NASA) 48 CFR Part 1842 and 1852
- 11) NASA Policy Directive 9501.3, Earned Value Management
- 12) NASA 48 CFR 1842.302, Contract Administration Office Functions
- 13) NASA 48 CFR 1842.7401, Earned Value Management System
- 14) NASA 48 CFR 1842.7402, Solicitation Provision and Contract Clause
- 15) NASA 48 CFR Part 1852, Solicitation Provisions and Contract Clauses
- 16) DLAH 8400.2, Earned Value Implementation Guide

E. Process flow chart:

F. Who does what and when they do it:

1) Pre-contract and Early CAS activities:

DCMC shall pursue opportunities for participation in Early Contract Administration Services (Chapter 1.1.1, Early CAS). During the pre-award phase, the CAO should request the supplier to supply cost/schedule data in X12 EDI format. System acceptability determinations may be made during this phase as well as execution of an Advance Agreement. Through the management council the Commander will solicit feedback from industry and government counterparts on suggested improvements that may be observed in the EVM system and process.

2) Contract receipt and review:

Upon receipt of a contract (Chapter 6.1.1, Contract Receipt, Review and award Planning) with EVMS or C/SSR, review shall be accomplished by the PST, to include the EVMS monitor. Recommended changes to the contract resulting from contract review due to suspected inappropriate EVMS implementation and reporting requirements in the contract shall be documented on DD Form 1716, Contract Data Package Recommendation/Deficiency Report. If not previously arranged, the CAO should request via DD1716, cost/schedule data in X12 EDI format. Any recommendations or deficiencies requiring a contract modification of an EVMS requirement shall be reported by the ACO to the Procuring Contracting Officer (PCO).

3) EVMS validation:

a. HQ DCMC shall be responsible for control and accomplishment of initial systems validation and special reviews. When a supplier's EVMS has not been validated, then per DFARS
252.234-7001, the supplier must demonstrate to the cognizant ACO that their management control system complies with the EVMS criteria. The cognizant Administrative Contracting Officer (ACO) shall be the authority for recognizing the supplier's system as being compliant with the EVMS criteria by issuance of a letter of acceptance/Advance Agreement (guidebook) to the supplier indicating system acceptability. Recognition of a supplier's system shall remain in effect until such time as a requirement for such a system no longer exists or surveillance deems the system to be non-compliant with EVMS criteria. The CAO shall coordinate with the

District EVMS Process Champion to obtain CAO-external resources, such as EVMS Center or District Process Champions, to assist in acceptability and validation of the supplier's EVMS. The CAO EVMS Monitor shall maintain status of the supplier's EVMS in the **CSST** and ensure the information is kept current, complete, and accurate. The CAO EVMS Monitor shall assist the buying activity in determining adequacy of the supplier's EVMS. To satisfy the validation requirement, the supplier may offer supplier-sponsored 3rd Party certification or self-certification that will require review and confirmation by the government.

- b. If the supplier's EVMS has been validated by successful completion of a validation review, or supplier's self-evaluation or third-party evaluation has established acceptability to the government, then every effort will be made by DCMC to encourage the supplier to establish an **Advance Agreement** (AA) (guidebook). Procedures for developing an AA are provided in **DLAH 8400.2.** The EVMS Monitor shall enter into a dialogue with the supplier's EVMS representative and the ACO regarding both parties entering into such an agreement. The AA can be used to provide DoD recognition of the supplier's EVMS and, once executed, may be used by the supplier to demonstrate that they fulfill the requirements for an EVMS as required by **DFARS 252.234-7001** on all future contracts requiring compliance with the provisions of **DoD 5000.2-R**. Lack of an AA will cause the supplier to undergo re-validation on future contracts.
- c. The Advance Agreement will remain in effect indefinitely unless such things as uncorrected major system discipline problems occur for which the supplier failed to take corrective action. If this occurs the EVMS monitor may recommend to the signatory ACO to the Advance Agreement that they advise the supplier of and address the possibility that government recognition of their EVM system might be withdrawn for failure to take corrective action (ACO System acceptance withdrawal). (guidebook) The supplier may appeal this action; however, DCMC HQ is final authority for withdrawal of government's recognition of the system.
- d. The supplier is contractually obligated to maintain the EVMS in accordance with the criteria. Changes to the system require prior government approval unless a pre-approval waiver (DFARS –7001) has been issued by the ACO. (one book 6.1.1) The EVMS Monitor shall coordinate with all EVMS stakeholders to ensure the supplier has demonstrated use of their EVMS as a management tool prior to recommending the ACO grant the Pre-Approval Waiver. Waiver of system changes is described in DFARS 252.234-7001 and DLA Handbook 8400.2. The EVMS Guidebook provides guidance to the EVMS Monitor on which to base a pre-approval waiver recommendation.
- 4) Memorandum of Agreement (MOA) or Letter of Delegation (LOD) input. The Program Integrator is responsible for ensuring that the EVM input to the MOA or LOD is current and accurately describes the level of support to be provided to the PM. Points to be considered in the development of the EVM portion of the MOA or LOD are found in the <u>Earned Value</u> <u>Management Implementation Guide DLAH 8400.2</u>, <u>Part II</u>, <u>Section 3-4 and Chapter 5.1.4</u>.
- 5) Surveillance planning:
- a. The EV Monitor and Program Integrator/Program Support Team are responsible for performance of surveillance activities as documented in the EVM system and program surveillance plans, respectively, and perform analysis of EVMS data.
- b. System surveillance planning: CAO shall engage in compliance review activity with each supplier that has a requirement to meet the EVMS criteria as defined by **DFARS 252.234-7000** and C/SSR solicitation provision **DFARS 252.242-7005**. The EVMS Monitor shall develop a formal EVMS surveillance plan. The EVMS Surveillance Plan shall integrate all other

Management Implementation Guide, Part II, Section 3-2, EVMS criteria, and DoD 5000.2-R requirements. It will be designed such that evidence may be accrued to determine if the supplier is using the system required and agreed to by contract. The EVMS monitor shall coordinate (EVMIG) the surveillance plan with the supplier, the CAO, major sub-tier supplier CAOs, the program manager, and the cognizant Defense Contract Audit Agency field office to ensure that EVMS surveillance is performed in an effective manner and avoids duplication. A copy of the system surveillance plan shall be provided to the affected buying activities. The CAO shall encourage the EVMS stakeholders to develop and participate in a process by which joint surveillance is performed. The surveillance plan shall include description of a schedule that ensures implementation and compliance of the supplier with the EVMS criteria and contract requirements. The EVMS surveillance plan shall be used by the CAO EVMS Monitor to ensure that the supplier maintains their management system.

c. Program surveillance planning:

- I. PI/PST shall be responsible for the surveillance of the supplier's earned value management (EVM) system and application in the acquisition program. (Personnel performing tasks in this regard are at times referred to as EV or EVM monitor.) The PST shall be responsive to the stated and implied needs of their customers as they relate to EVM issues. Responsibility for development of earned value portion of the program surveillance plan and its execution lies with the Program Support Team (PST) and specifically the Program Integrator (PI) (Chapter 5.1.4). EVMS metrics (VARs, CPI, SPI etc) shall be integrated into an overall program assessment plan per Chapter 5.1.4. The PI/PST shall develop a process by which contract EVMS metrics (e.g. SPI, CPI, LRE, variance, etc.) are accumulated and analyzed. EVMS data shall be continually analyzed and used to update or modify the program risk assessment. (one book chapter risk) The PI shall ensure that individual PST members' surveillance plans adequately address key performance risk elements, and satisfy the terms and conditions of the Memorandum of Agreement (PI Chapter) or Letter of Delegation executed between the CAO Commander and the Program Manager.
- II. The supplier may elect to use their accepted EVMS or submit a written summary of management procedures for the Cost/schedule status report (C/SSR) requirements. Although only a written summary is required, it is desirable for a supplier to maintain documented procedures. If a supplier has an accepted EVMS, the EVMS Monitor shall encourage the supplier to apply their EVMS to C/SSR contracts. If the supplier does not have written procedures, the CAO should recommend to the government program manager request that, at a minimum, the supplier use the summary of management procedures described in the supplier's proposal. The program manager plays a key role in the cost and schedule management of C/SSR contracts and must be involved in determining the management system and reporting requirements on the contract. **DFARS Clause 252.242-7005** shall be included in solicitations for which the resultant contract will require the submission of a C/SSR. The EVMS Monitor shall support procuring activities in evaluating C/SSR implementation and support the program manager fulfilling performance measurement responsibilities. **(C/SSR Joint Guide DLAI 5000.7)**.
- **6) Sub-tier Supplier Surveillance**: The PI/PST is responsible for ensuring the analysis of cost and schedule impact by the sub-tier suppliers and incorporating this data into overall program analysis. This may necessitate the issuance of a letter of delegation with the CAO responsible for the sub-tier suppliers and the establishment of an **SPI/SPST network** (hyperlink to Chap 5.1.4, para 4.f.3).

7) Perform system surveillance: System surveillance shall include a recurring evaluation of supplier internal management control practices, as well as samples of internal and external reported data to ensure the validity of the supplier's performance data provided to the Government. The EVMS Monitor shall verify that supplier's management personnel are using EVMS information to develop solutions and implement corrective action.

Through coordination with the respective District EVMS Process Champions, the EVMS Center or the Process Champion may be requested to participate in validation and compliance reviews.

8) Perform Program surveillance

- a. The PI/PST is responsible for overseeing EVM as it relates to program management. The PI/PST shall execute the EVMS portion of the program surveillance program, including assessment of supplier earned value management methods, participation in Integrated Baseline Reviews (IBRs), and resolution of buying activity concerns related to the supplier's EVM program. The Program Integrator with assistance from the PST and EVMS Monitor shall review all items used by the supplier to manage cost, schedule, and technical performance (i.e., contract, risk assessment and mitigation plans, Statement of Work, Work Breakdown Structure, EVM plans and methods). The PI with assistance from the EV Monitor and other members of the PST shall provide program managers with independent and predictive analysis of EVMS data, to include an independent Estimate at Completion. The PI/PST shall verify that the supplier's execution of his EVMS will allow prediction, isolation, and identification of variances as well as the factors causing the variances.
- b. The PST and EVMS monitor should be aware of any EVMS or C/SSR reviews to be performed by other Government agencies at the supplier's facility. The CAO should encourage other agencies desiring to audit the supplier's EVMS to use information gained through DCMC surveillance activities and from previous reviews (DoD 5000.2-R, paragraph 3.3.6.6).

9) Analysis and reporting:

- a. Analysis should be based upon surveillance and EVMS data accumulated for the purpose of developing recommendations as well as providing system and program status to customers. Efforts in this regard should include predictive analysis of the EVM system and program. DCMC preferred software tool for analyzing data is **wlnsight**. The government developed EVMS data shall be used in an overall program assessment to evaluate if the supplier's risk statements are accurate and timely and any proposed corrective actions are feasible and reasonable within the scope of the contract.
- b. In the event a supplier fails to maintain an EVMS compliant system, the CAO EVMS Monitor or the PST, if the problem stems from EV program management, shall issue a **Corrective Action Request (CAR)**. The CAO shall maintain a record of all CARs issued (verbal and written) including corrective and preventative actions taken in response to the CAR. The CAO shall establish and maintain documented procedures that describe the process to accomplish this action. This process shall cause CAO personnel to re-visit CARs in order to ensure completion/closure of the identified deficiency. The CAO EVMS Monitor in conjunction with the PST will report all EVMS discipline problems determined to be systemic and/or major violations of the supplier's EVMS to the ACO, District EVMS Process Champion, and buying activity. Programmatic issues, such as variance, shall be reported directly to the buying activity.
- c. The EVMS Monitor has specific responsibility for assessing and reporting the health of the supplier's earned value management system at least annually. The EVMS Monitor shall provide the ACO with an assessment of the supplier's EVMS or C/SSR procedures. The EVMS Monitor shall keep the status of the supplier's EVMS in the Web-based Supplier Information Service's

Contractor Systems Status Table (CSST) and ensure the information is current, complete, and accurate. This recording of system status is a reflection of the EVM program and system audits performed in accordance with program and system surveillance plans.

- d. The PI/PST shall ensure that timely and insightful reports shall be prepared and submitted as part of a periodic system and program assessment per the MOA or LOD, or in the event of significant changes to the health of the supplier's EVM program. The PI/PST shall ensure that reports address cost and schedule variances, results of corrective action, and follow up action performed by DCMC. Program Integrators and EVMS monitors shall use a Blue/Green/Yellow/Red stoplight measurement system (guidebook) to reflect system health in EVM program and system status reports. In addition, the Program Integrator shall ensure that program EVM data is included in the Contractor Performance Measurement portion of AMS.
- e. A surveillance file shall be established to contain all pertinent data and information regarding surveillance on a program to include both system and program surveillance effort. This file shall include earned value system/program review results, evaluations, discrepancies, system discipline problems, and follow-up action that indicates corrective and preventive action taken. The records file shall include any PMO and/or supplier correspondence, meetings, and actions. The surveillance file is a chronological record of the contract and shall be maintained until program completion and forwarded for inclusion in the official contract file.

10) Review and adjustment of surveillance plans:

- a. The EVMS surveillance plan shall be reviewed and updated annually. The PI/PST and EVMS Monitor shall continually assess surveillance activities to ensure the level and degree of DCMC surveillance is appropriate to assess the ability of the supplier's EVMS to plan and control program resources. Surveillance activities shall be adjusted based upon performance and assessed risk elements.
- b. Design and execution of earned value surveillance activity shall be based upon DCMC risk management practices. Tailoring of surveillance will account for the differences between the supplier's observed management practices and program performance and system performance versus EVMS criteria. In addition, DCMC tailoring will address the supplier's internal EVMS surveillance practices and willingness to participate in joint surveillance along with DCMC, DCAA, and the buying activity.

5. Additional process information:

- A. Earned Value Management Implementation Guide, SAF/AQ EVMS GUIDE, AFMPC 173-5, DA Pamphlet 715-5, NAVSO Pamphlet 3627, BMDO Guide 7007G, DLAH 8400.2, DCAA Pamphlet 7641.47, NSA/CSS Handbook N255-01
- B. C/SSR Joint Guide, Cost/Schedule Management of Non-Major Contracts, AMC-P 715-13, NAVSO P3547, AFMCP-65-101, BMDO 7008-G, DLAI 5000.7, DCAAP 7641.92, NSA/CSS N255-02
- C. DCMC Metric Guidebook
- D. DCMC Business Plan, Task 1.3.4, Schedule Slippage's on Major Programs, and Task 2.1.7, Cost Overruns on Major Programs
- **E.** BMDO 5004G

6. Competencies/certifications required to execute this process:

DCMC Training Matrix

Certifications: In accordance with DLA-CAHW letter dated 14 June 1996, EVMS specialists shall have Level II DAWIA Certification in any career field and have completed the courses listed below. Specific training, knowledge and experience levels of Earned Value personnel are detailed in the **Earned Value Training Guide**.

A. BCF 102, Fundamentals of Earned Value Management Course B. BCF 203, Intermediate Earned Value Management Course

7. PLAS reporting code:

070, Earned Value Management PLAS Code

Process Unit Count: Program Earned Value Management Surveillance Report

8. DCMC Process Owner and Process Champions:

Process Owner: Mr. William Gibson, DCMC-OF

Telephone: (703) 767-3368 e-mail: wgibson@hq.dla.mil

DCMDE:

Process Champion: Mr. Ramala Sinha

Telephone: (617) 753-3596

e-mail: Error! Bookmark not defined.

DCMDW:

Process Champion: Ms. Barbara Gomes

Telephone: (310) 335-4209

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DCMDI:

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3.1.2 Process Flowchart

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CHAPTER 3.1.2/4.6.1 <u>EARNED VALUE MANAGEMENT</u> (SUPPLIER PERFORMANCE MEASUREMENT)

